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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,338	07/26/2001	Hiroyuki Shinozaki	010953	5657

23850 7590 04/23/2003

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EXAMINER

ELKASSABGI, HEBA

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 04/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/912,338	SHINOZAKI, HIROYUKI
	Examiner Heba Elkassabgi	Art Unit 2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 12-06-2002.

2a) This action is **FINAL**.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-3 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-3 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on 1206-02 is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) Notice of References Cited (PTO-892)      4) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)      5) Notice of Informal Patent Application (PTO-152)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_      6) Other: \_\_\_\_\_

## DETAILED ACTION

### *Specification*

The abstract of the disclosure is objected to because the current abstract submitted by the applicant is 181 words, and that the abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. Correction is required. See MPEP § 608.01(b).

The spacing of the lines of the specification is such as to make reading and entry of amendments difficult. New application papers with lines double spaced on good quality paper are required.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. The claim states a "the electromagnetic target", which is not fully, clearly, and concisely disclosed as to what the electromagnetic target is.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2, and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Applicants Prior Art (APA).

Applicants Prior Art in Figures #1, #2, and #3, illustrate and disclose in the background of the invention, a current sensor (11) that detects a control current output from a power amplifier (7), with a displacement sensor (10) that detects a displacement of a support member (1). A magnetic flux density estimating means that a control current detection signal ( $S_i$ ) of the current sensor (11). A displacement detection signal ( $S_g$ ) of the displacement sensor (10) that approximates the magnetic flux the surface of the electromagnet (4) and the electromagnetic target (3) on the supported member (1). Furthermore, and estimated value (magnetic flux signal)( $S$ ) from the estimating means is fed back to the power amplifier (7). A control current detection signal ( $S_i$ ) of the current sensor (11) is fed back to the power amplifier (7). Including a voltage sensor (13) that is detecting a coil voltage (6) that is a support electromagnet (4) and a coil voltage detection signal ( $S_v$ ) of the voltage sensor (13) that is fed back to a power amplifier (7).

***Response to Arguments***

Applicant's arguments filed 12/06/02 have been fully considered but they are not persuasive.

In regards to the estimating means, the applicant does not disclose in the claims a description of what the estimating means is. Applicant only states that the estimating means estimates the magnetic flux. For example the estimating means can be either the target (8), or the control command signal (S1), or the output signal of the estimator (20), or the regulator (12). Furthermore the prior art of Figures 1,2, and 3 indicate in page 2 line 10,12,16 and 33-35, page 3 line 13-14 and 24 disclose that a magnetic flux is calculated using the feedback which indicates that a flux is being estimated based on a target and sensors.

Additionally the reference of "Modern Control Systems" by *Richard C. Dorf and Robert H. Bishop* teach in Chapter 1 in page 13 reference figure 1.13 a control system wherein a reference input is being compared to a feedback in which a calculated output (error) is estimated. As discussed in "Modern Control Systems", is a fundamental control system text, which is an introduction text to engineering students in understanding control systems. So that one of ordinary skill in the art would understand that by having a reference input being compared to another feedback input an estimated output is obtained. Which is further shown in page 15-reference figure 1.15; page 22 references Figure 1.21; page 24-reference figure 1.25; page 55 reference figure 2.18; page 94-reference figure E2.10; and page 108-reference figure P2.27.

In regards to the support member the applicant does not give a physical or structural description as to what the support member is a bearing, shaft, magnet, etc.

Applicants argument of lack of possession is not persuasive, because the examiner did not address a lack of possession in the 35 U.S.C. 112, first paragraph rejection in the prior office action; for this reason examiner will not address the lack of possession argument. The examiner suggests that the applicants claim language be modified in a clearer and more detailed manner.

Applicants argument of lack of enablement rejection is not persuasive, because the examiner has not presented an argument of enablement for the applicant to address; for this reason the examiner will not address the lack of enablement argument.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

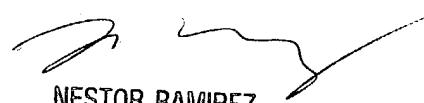
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heba Elkassabgi whose telephone number is (703) 305-2723. The examiner can normally be reached on M-Th (6:30-3:30), and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

HYE  
April 21, 2003



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